

**Amendments to the Drawings:**

The Examiner stated that the drawings include the reference number 116 not described in the Specification. Applicant has removed the reference number 116 from Figure 1. Attached hereto is a replacement sheet of Figure 1 without reference number 116. Applicant respectfully requests that the Examiner replace the current sheet have Figure 1 with the attached replacement sheet.

### **REMARKS/ARGUMENTS**

Applicant has carefully reviewed and considered the Office Action mailed on August 23, 2005, and the references cited therewith.

Claims 1, 6-8, 13-18, and 25-28 are amended, and claim 9 is canceled; as a result, claims 1-8, 10-29 are now pending in this application.

#### **§103 Rejection of the Claims**

Claims 1-29 were rejected under 35 USC §103(a) as being unpatentable over Notargiacomo, et al. (U.S. Patent No. 6,879,422) in view of Hui, et al. (U.S. Patent No. 6,438,148).

The Notargiacomo reference appears to describe an electro-optical modulator 100 with a RF port 918 connected with a RF electrode 128 and a bias port 919 connected with a bias electrode 129. (Col. 11, Lines 13-47; Fig. 4). The reference includes a bias point control circuit 200 for injecting a drive signal into the electro-optical modulator 102 through bias port 919 and a modulating signal S<sub>2</sub> injected through RF port 918. (Col. 11, Lines 13-47; Col. 14, Lines 11-17; Fig. 4). Thus, two electrical signals, S<sub>2</sub> and the drive signal, are input into the electro-optical modulator 102.

In contrast, independent claim 1, as amended, recites:

modulating an optical beam to encode information through use of an electroabsorption modulator (EAM) that receives a single electrical input signal

In addition, independent claim 13, as amended, recites:

modulating an optical beam to encode information through use of an electroabsorption modulator (EAM) provided with a single electrical input signal

Moreover, independent claim 18, as amended, recites:

an electroabsorption modulator (EAM) configured to encode information in an optical beam and to modulate the optical beam according to a single electrical input signal

Further, independent claim 7, as amended, includes:

forming an output optical beam having a pilot signal component having a frequency that is outside a signal band range of an

information signal component provided to have information encoded thereon;  
encoding information onto the information signal component of the output optical beam through use of an electroabsorption modulator (EAM);  
monitoring the pilot signal component output from the electroabsorption modulator (EAM) to determine the magnitude of a harmonic  
correlating the magnitude of the harmonic with an optimum electrical signal value to be input to the EAM to reduce the magnitude of the harmonic; and  
adjusting an electrical input to the EAM to equal the optimum electrical signal value

These limitations are also not taught or suggested in the Notargiacomo reference. Further, nothing from the Hui reference cures the deficiencies of the Notargiacomo reference. As such, Applicant respectfully submits that each and every element and limitation of independent claims 1, 7, 13, and 18, as amended, is not taught or suggested in the Notargiacomo and Hui references, either individually or in combination, and that independent claims 1, 7, 13, and 18 are in condition for allowance. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the §103 rejection of claims 1, 7, 13, and 18, as well as those claims that depend therefrom.

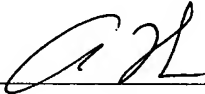
**CONCLUSION**

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (612) 236-0121 to facilitate prosecution of this matter.

**CERTIFICATE UNDER 37 CFR §1.8:** The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: **MS AMENDMENT** Commissioner of Patents, P.O. BOX 1450, Alexandria, VA 22313-1450 on this 21<sup>st</sup> day of November, 2005.

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